IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application	)	PATENT APPLICATION
	)	
Inventor: David L. Multer	)	
	)	Art Unit: 2167
Application No.: 09/491,675	)	
	)	Examiner: Ali, Mohammad
Filed: January 26, 2000	)	
	)	Customer No. 28554
Title: DATA TRANSFER AND	)	
SYNCHRONIZATION SYSTEM	)	
	)	

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This brief is submitted in accordance with 37 C.F.R. §41.37, following the Notice of Appeal filed by Appellant(s) on May 6, 2005, the Notice of Non-Compliant Appeal Brief mailed on November 13, 2007, and , the Notice of Non-Compliant Appeal Brief mailed on February 5, 2008. The fee set forth in 1.17(c) was previously submitted.

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I.   REAL PARTY IN INTEREST *(37 C.F.R. §41.37(c)(i))*
        The real party in interest is fusionOne, Inc.

II. RELATED APPEALS AND INTERFERENCES *(37 C.F.R. §41.37(c)(ii))*

Appellant knows of no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III.   STATUS OF CLAIMS *(37 C.F.R. §41.37(c)(iii))*

Claims 49-53, 55-61, 63-70 and 72-75 are pending in this application. Claims 1-48, 54, 62 and 71 are cancelled. Claims 49-53, 55-61, 63-70 and 72-75 stand finally rejected.

Appellant herein appeals from the final rejection of Claims 49-53, 55-61, 63-70 and 72-75.

IV.   STATUS OF AMENDMENTS *(37 C.F.R. §41.37(c)(iv))*

No amendments are submitted with this Brief. All amendments to date have been entered.

V.   SUMMARY OF CLAIMED SUBJECT MATTER *(37 C.F.R. §41.37(c)(v))*

With a multitude of different portable devices on the market, each operating with data in a different proprietary format, keeping information between the different devices synchronized has become increasingly problematic. For example, if an individual keeps a calendar of information on a personal computer in his or her office using a particular personal information manager application, the individual would generally like to have the same information available in a cellular phone, hand-held organizer, and perhaps a home personal computer. The individual may additionally have a notebook computer which requires synchronizing file data such as presentations or working documents between the notebook and the office computer.

The present invention relates to a system for synchronizing information between different, remote devices, each possibly operating with data in a different proprietary data format. According to embodiments of the present invention, each such device may include a software device engine specific to that device. For example, a cellular telephone may include a dedicated cellular device engine, a personal digital assistant ("PDA") may include a dedicated PDA device engine, etc. (Specification, page 16, line 4 – page 18, line 15). The respective device engines provide an interface capable of translating proprietary data from the associated device into a universal data format. Once converted into a universal format, the data is compared to a prior stored version of the data in the universal format to generate universal differencing information. This universal differencing information represents changes between current version of the universal format data and a prior version of the universal data format. Only the differencing information is then propagated to the remote networked devices to maintain synchronization between the devices. (Specification, page 20, line 7 – page 22, line 2).

With regard to support for specific claim limitations, independent claim 49 recites:

> A data synchronization system for a first system having a plurality of
> data sources each with a data source format, and a second system
> having a plurality of data sources each with a data source format;
> comprising:

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The preamble of claim 49 recites two first and second systems having data sources each with a data source format. Support for the preamble may be found for example in Fig. 1, and in the specification at page 6, lines 8-15.

Claim 49 further recites:

> a first data synchronizer on the first system transmitting at least one
> set of difference information to an output;
>
> a second data synchronizer on the second system capable of receiving
> said at least one set of difference information; and

These features recite first and second data synchronizers for the transmission and receipt of differencing information. Differencing information represents the changes to data from a last synchronization operation. The specification sets forth several examples of first and second data synchronizers for the transmission and receipt of differencing information in Figs. 1-7 and in the Specification for example at page 10, line 1 though page 13, line 29.

Claim 49 further recites:

> a network for coupling the first file system and the second file system
> to allow communication between the first file system and the second
> file system when the first and second file systems are physically
> remote from each other.

A network as recited in claim 49 is explained in the Specification for example at page 9, lines 20-26; page 13, lines 11-23.

The application further includes independent claim 61, which recites:

61.   A data synchronization system, comprising:

The feature of a data synchronization system is discussed throughout the specification, and is shown for example in Figs. 1-7 and discussed for example in the Specification at page 10, line 1 though page 13, line 29.

Claim 61 further recites, "a server." This feature is shown for example in Figs. 3-7 and described for example at page 11, line 9 through page 13, line 29.

Claim 61 further recites, "a network to which the server is operatively coupled." This feature is explained in the Specification for example at page 9, lines 20-26; page 11, lines 20-27 and page 13, lines 11-23.

Claim 61 further recites:

> a first system having a plurality of data file types;

> a differencing synchronizer on the first system extracting a first set of differencing data from the data files on the first system when the data files on the system are changed, outputting the differencing data to the server, and retrieving differencing data from the server and applying it to selected data files on the first system.

These features are explained for example with reference to Figs. 3-7 and described for example at page 11, line 9 through page 13, line 29. Further explanation of the differencing data is explained in the Specification at page 10, lines 1- 13.

Claim 61 further recites:

> at least one second system having a second plurality of data file types; and

> a differencing synchronizer on the second system extracting the differencing data from the data files on the second system when the data files on the system are changed, outputting the differencing data to the server via the network, and retrieving the first set of differencing data from the server via the network and applying it to selected data files on the second system.

These features are explained for example with reference to Figs. 3-7 and described for example at page 11, line 9 through page 13, line 29. Further explanation of the differencing data is explained in the Specification at page 10, lines 1- 13.

The application further includes independent claim 66, which recites:

> 66.   A method for synchronizing at least a first file and a second file resident on a first and a second systems, respectively, comprising:

The feature of first and second files in first and second systems is disclosed for example in Figs. 1-7 and in the Specification for example at page 10, line 1 though page 13, line 29.

Claim 66 further recites the step of:

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(a)   determining difference data resulting from changes to a first file on the first system;

(b)   transmitting the difference information to a remote second system via a network;

The step of determining difference data for changes to a first file and transmitting it to a second system is explained for example in Figs. 1-7 and in the Specification for example at page 10, line 1 though page 13, line 29.

Claim 66 further recites the steps of:

(c)   applying the difference information to generate change data for the second file; and

(d)   updating the second file on the second system with the difference data.

The steps of applying difference information and updating the second file are explained with reference to Figs. 1-7 and in the Specification at page 10, line 1 though page 13, line 29. For example, at page 10, lines 14-22, the Specification sets forth:

For example, if System A and System B are two computers and an update for certain binary files on System A is required, the differencing transmitter on System A will extract the differences in the file known to exist on System B and any new files, and transmit only those differences (an instructions for where to insert those differences) to the differencing receiver 102. Differencing receiver 102 will interpret the difference information (Δ) and reconstruct the binary files on System B. In this manner, the information on System B is updated without the need to transfer the entire binary files between the Systems.

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VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL *(37 C.F.R. §41.37(c)(vi))*

Whether claims 49-53, 55-61, 63-70 and 72-75 of the application are properly rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,710,922 to Alley ("Alley").

VII.   ARGUMENT *(37 C.F.R. §1.192(c)(8))*

A.   Summary of Alley

Alley discloses synching a "local" computer to a "remote" computer when the remote computer is docked to the local computer. In particular, as described at Col. 7, line 51 through Col. 10, line 17, in order to synch a remote computer to a local computer, the local computer includes a docking interface allowing the remote computer to be docked thereto. If the local and remote computers are not compatible, then the docking operation is terminated and no synch is possible. (Col. 9, lines 42-46). If the systems are compatible, then the remote computer is synched to the local computer. The synching process is time based. As explained in the reference:

> Initially in step 142, the dock sends a message to the remote which indicates the last time that the remote was synchronized by that particular dock. The time of the last synchronization is sent in order to determine which entries need to be updated. As indicated above, when an entry is revised, the revision time is entered as part of the data entry. This permits the synchronization to be time based. That is, only the records that have been added, deleted or revised since the last synchronization need to be revised. By maintaining a time-based backup system, multiple docks can be used to synchronize the information stored on a particular remote, which may be desirable for a variety of reasons. (Col. 10, lines 19-31).

B.   Claims 49-53 and 55-60: Alley Requires Physical Docking

The Examiner continues to maintain that:

> Alley teaches all limitations as discussed in the final office action including "a network for coupling the first file system and second file system to allow communication between the [sic] first file system and the second file system,…".

See the Office action dated November 9, 2004, page 2, under "Response to Arguments." See Advisory action dated June 3, 2005, Continuation Sheet.

However, it is respectfully submitted that, in so stating, the Examiner has ignored other claim limitations from the cited clause. A complete quote from the clause in Claim 49 cited by the Examiner is:

> a network for coupling the first file system and the second file system to allow communication between the first file system and the second file system *when the first and second file systems are physically remote from each other.*

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Appellants have pointed out that the Examiner appears to have ignored the portion of Appellants' Claim 49 which recites, "… when the first and second file systems are physically remote from each other." The Examiner has not addressed this portion of Appellants' argument and has not explained where Alley discloses, teaches or even suggests this limitation.

There is no basis in law for ignoring claim limitations. All claim limitations are significant and must be given weight and effect vis-à-vis the patentability of a claim. *Application of Saether*, 492 F.2d 849, 852 (CCPA 1974). In order to support a rejection under Section 102, a reference must disclose **each and every** limitation found in the claims. *Rockwell Intern. Corp. v. U.S.*, 147 F.3d 1358, 1363 (Fed. Cir. 1998). Omission of any claimed element, no matter how insubstantial, is grounds for traversing a rejection based on §102. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542 (Fed. Cir. 1983).

It is respectfully submitted that the above-mentioned claim limitation is nowhere disclosed, taught or suggested in Alley. Nor has the Examiner addressed this limitation in the Office actions. Alley clearly and throughout discloses that the pen-based computer system is synched with the desk top computer **only when the pen-based computer is docked to the desk top computer**. There is no disclosure, teaching or suggestion in Alley of a system where two computing devices may be synched when they are remote from each other.

Without such disclosure, it is respectfully submitted that Alley cannot form an anticipation of Claim 49, and Claims 50-53 and 55-60 dependent thereon.

C.   Claims 51-53, 61, 63-65, 67-70 and 72: Synchronization by Universal Differencing Data

In addition to the above, a further distinction between the present invention as recited in various forms in Claims 51-53, 61, 63-65, 67-70 and 72 and the cited reference is the nature of the synchronization process and the differencing data used for the synchronization process. Alley does not disclose, teach or suggest a system as in the present invention whereby application specific data is first converted to a universal format, and then this universal format data is used for a comparison against a stored prior version of the data. This feature is discussed in Appellants' specification at page 20, line 7 through page 22, line 2. Converting the application data to a universal format

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overcomes the problem of synching application data that may be in different formats. The Examiner did has not addressed this argument, and in fact Alley has no disclosure teaching or suggestion of a system where application data is first converted to a universal format, and the universal format data is used for a comparison against a stored prior version of the data.

In fact, Alley expressly discloses that where data is incompatible, the synch operation is impossible and is terminated:

> When communication between the dock and the host is initiated, the local logic first determines whether the systems are compatible in step 132. If not, a dialog box indicating that the systems are not compatible is displayed in step 133 and the docking function is terminated. This determination is made based on the information that is received from the remote in its original connection request. Specifically, in the original connection request, the remote transmits information indicative of the system protocal version. When this information is received, the dock checks to determine whether it is using the same protocol version as (i.e., is capable of synchronizing with) the selected system. Step 132. If so, the logic proceeds to step 135, where it requests, and step 136, where it receives, the remote name and system information. (Alley, Col. 9, lines 43-57).

If data is compatible in Alley, Alley simply takes all records which have changed since the last synch, as indicated by a time stamp, and transfers those records. There is no conversion to a universal format and there is no comparison against a prior version of the information. In the Office actions, the Examiner indicated that Alley performs a comparison of information as claimed. The Examiner maintains that a comparison against a previous version of data does take place when the data from a first system is compared against the data existing in the system to be updated. However, the data on the system to be updated is not a stored copy of the previous state of the data. Alley does not disclose or teach this feature.

The above-described features and distinctions of the present invention are recited in the claims. For example, Claim 51 recites:

> The data synchronization system of claim 49 wherein each said data synchronizer comprises:
>> a data source interface;
>> a copy of a previous state of each said data source;
>> a source data constructor applying difference information to said copy; and

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a difference information generator.

Alley has no disclosure, teaching or suggestion of a previous state of each data source, a data source constructor or a difference information generator.

Claim 52 recites:

The data synchronization system of claim 51 wherein said difference information is transmitted from said first synchronizer to said second synchronizer in a universal format.

As described above, the present invention takes data from its application specific, proprietary format, and converts it into a universal format. Alley has no disclosure, teaching or suggestion of a universal format.

Claim 53 recites:

The data synchronization system of claim 51 wherein said data synchronizer includes a plurality of difference source interfaces, each corresponding to a data source format.

As described above, Alley does not work with different data formats, and has no disclosure, teaching or suggestion of working with different data formats.

Claim 61 recites in part:

A data synchronization system, comprising: …
a first system having a plurality of data file types;
a differencing synchronizer on the first system extracting a first set of differencing data from the data files on the first system when the data files on the system are changed, outputting the differencing data to the server, and retrieving differencing data from the server and applying it to selected data files on the first system;
at least one second system having a second plurality of data file types; and
a differencing synchronizer on the second system extracting the differencing data from the data files on the second system when the data files on the system are changed, outputting the differencing data to the server via the network, and retrieving the first set of differencing data from the server via the network and applying it to selected data files on the second system.

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As described above, Alley does not work with different data file types. Also, Alley does not disclose, teach or suggest outputting and retrieving differencing data to a server. As set forth above, Alley only discloses the transfer of information between two systems that are directly docked to each other.

Claim 67 recites:

The method of claim 66 wherein said step of determining comprises:
comparing data from the first file to a copy of a previous state of data from the first file.

Alley has no disclosure, teaching or suggestion of comparing data from a first file to a copy of a previous state of data from the first file. The Examiner indicated that a comparison of data against a previous version does take place when the data from a first system is compared against the data existing in the system to be updated. However, the data on the system to be updated is not "a copy of the previous state from the first file." This feature is not disclosed in Alley.

Claim 68 recites:

The method of claim 67 wherein said comparing step comprises extracting data from said first file, converting said data to a universal file format, providing said copy of said data in said universal format, and comparing said data and said copy to provide difference data in said universal format.

As described above, Alley has no disclosure, teaching or suggestion of a universal format.

Claim 69 recites:

The method of claim 68 wherein said step of applying comprises:
constructing new file data for said second file in said universal data format.

Alley does not disclose a universal data format.

Claim 70 recites:

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The method of claim 69 wherein said step of updating comprises translating said new file data into a format of said second file.

Alley does not disclose translating file data into different formats.

Again, the omission of any claimed element, no matter how insubstantial, is grounds for traversing a rejection based on §102. As the cited reference has no disclosure of the above discussed features of the claimed invention, and does not attempt to address the problem addressed by the present invention, it is respectfully submitted that the present invention is patentable over the cited reference.

CONCLUSION

Based on the above, it is respectfully submitted that Claims 49-53, 55-61, 63-70 and 72-75 are patentable over the cited reference, and it is respectfully requested that the rejection of Claims 49-53, 55-61, 63-70 and 72-75 on Section 102(e) grounds be withdrawn.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 501826 for any matter in connection with this Appeal Brief, including any fee for extension of time, which may be required.

Respectfully submitted,

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VIII. CLAIMS APPENDIX *(37 C.F.R. §41.37(c)(viii))*

1. – 48. (cancelled)

49. (Previously Presented) A data synchronization system for a first system having a plurality of data sources each with a data source format, and a second system having a plurality of data sources each with a data source format; comprising:

a first data synchronizer on the first system transmitting at least one set of difference information to an output; ~~and~~

a second data synchronizer on the second system capable of receiving said at least one set of difference information; and

a network for coupling the first file system and the second file system to allow communication between the first file system and the second file system when the first and second file systems are physically remote from each other.

50. (original) The data synchronization system of claim 49 wherein said difference information comprises change transactions from the data source to the data destination.

51. (original) The data synchronization system of claim 49 wherein each said data synchronizer comprises:

a data source interface;

a copy of a previous state of each said data source;

a source data constructor applying difference information to said copy; and

a difference information generator.

52. (original) The data synchronization system of claim 51 wherein said difference information is transmitted from said first synchronizer to said second synchronizer in a universal format.

53. (original) The data synchronization system of claim 51 wherein said data synchronizer includes a plurality of difference source interfaces, each corresponding to a data source format.

54. (Canceled)

55. (Previously Presented) The data synchronization system of claim 49 wherein said network is the Internet.

56. (original) The data synchronization system of claim 49 wherein said first system is a server and said second system is a device capable of communicating with said server.

57. (original) The data synchronization system of claim 49 wherein said first and second systems are coupled to a storage server, and said difference information is transmitted to said storage server by said first synchronizer and retrieved from said storage server by said second synchronizer.

58. (original) The data synchronization system of claim 57 wherein said systems are coupled to said storage server via the Internet.

59. (original) The data synchronization system of claim 57 further including a management server communicating with said first and second data synchronizers.

60. (original) The data synchronization system of claim 59 wherein said management server indicates a location on the storage server where difference information for said synchronizers are stored.

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61.   (Previously Presented) A data synchronization system, comprising:

a server;

a network to which the server is operatively coupled;

a first system having a plurality of data file types;

a differencing synchronizer on the first system extracting a first set of differencing data from the data files on the first system when the data files on the system are changed, outputting the differencing data to the server, and retrieving differencing data from the server and applying it to selected data files on the first system;

at least one second system having a second plurality of data file types; and

a differencing synchronizer on the second system extracting the differencing data from the data files on the second system when the data files on the system are changed, outputting the differencing data to the server via the network, and retrieving the first set of differencing data from the server via the network and applying it to selected data files on the second system.

62.   (Canceled)

63.   (Previously Presented) The system of claim 61 wherein said systems are coupled via the Internet.

64.   (original) The system of claim 62 further including a server coupled to each of said first and second systems to receive, store, and output said first set and said second set of differencing data.

65.   (original) The data synchronization system of claim 61 wherein said first system is a server and said second system is a device capable of communicating with said server.

66.   (Previously Presented) A method for synchronizing at least a first file and a second file resident on a first and a second systems, respectively, comprising:

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(a)   determining difference data resulting from changes to a first file on the first system;

(b)   transmitting the difference information to a remote second system via a network;

(c)   applying the difference information to generate change data for the second file; and

(d)   updating the second file on the second system with the difference data.

67.   (original) The method of claim 66 wherein said step of determining comprises: comparing data from the first file to a copy of a previous state of data from the first file.

68.   (original) The method of claim 67 wherein said comparing step comprises extracting data from said first file, converting said data to a universal file format, providing said copy of said data in said universal format, and comparing said data and said copy to provide difference data in said universal format.

69.   (original) The method of claim 68 wherein said step of applying comprises: constructing new file data for said second file in said universal data format.

70.   (original) The method of claim 69 wherein said step of updating comprises translating said new file data into a format of said second file.

71.   (Canceled)

72.   (Previously Presented) The method of claim 69 wherein the network is the Internet.

73.   (original) The method of claim 66 wherein said step of transmitting comprises coupling the first system and the second system to a server and transmitting said information from the first system to the server, and from the server to second system.

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74.   (original) The method of claim 73 wherein said step of coupling includes coupling the first and second system to the server via a network.

75.   (original) The method of claim 74 wherein the network is the Internet.

IX.   EVIDENCE APPENDIX *(37 C.F.R. §41.37(c)(ix))*

None

X.   RELATED PROCEEDINGS APPENDIX *(37 C.F.R. §41.37(c)(x))*

None